

2300 Lake Elmo Drive Billings, MT 59105 March 13, 2009

TO: Environmental Quality Council

Director's Office, Dept. of Environmental Quality

Montana Fish, Wildlife & Parks*

Director's Office Parks Division Fisheries Division Wildlife Division

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Wayne Hirst, Montana State Parks Foundation

FWP Commissioner Shane Colton*

David Moore, DNRC Area Manager, Southern Land Office

County Commissioners

Other Local Interested People or Groups

* (Sent electronically)

Ladies and Gentlemen:

The enclosed draft Environmental Assessment (EA) has been prepared for the proposed transfer of fertilized Yellowstone cutthroat trout (*Oncorhynchus clarki bouvieri*) eggs within Henry Creek, a tributary to East Fork Duck Creek, located north of Springdale, Montana, and is submitted for your consideration. Questions and comments will be accepted until March 30, 2009.

Lands Section

Legal Unit

Design & Construction

Regional Supervisors

If you need additional copies of the draft EA, please contact Montana Fish, Wildlife & Parks at 247-2940. Questions about this project should be directed to Ken Frazer (247-2963) or Carol Endicott (222-3710). Please send any written comments by mail to: Gary Hammond at Montana Fish, Wildlife & Parks, 2300 Lake Elmo Drive, Billings MT 59105; or by e-mail to ghammond@mt.gov by March 30, 2009.

Thank you for your interest,

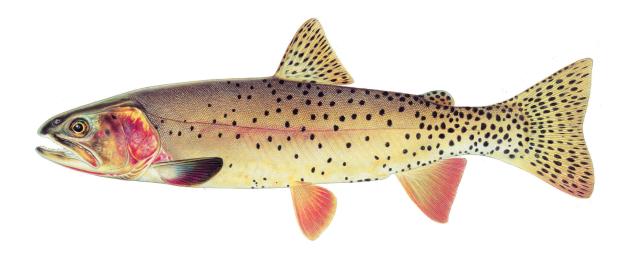
Gary Hammond Regional Supervisor

Davy Houne

Enclosure

TRANSFER OF YELLOWSTONE CUTTHROAT TROUT WITHIN THE DUCK CREEK WATERSHED

Environmental Assessment



March 16, 2009

Prepared by: Carol Endicott
Landowner Incentive Program/
Yellowstone Cutthroat Trout Restoration Biologist
1354 Highway 10 West
Livingston, MT 59047



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I. Description of Proposed Action

A. Description of Water Body and Action

Receiving Waters:

Name: Henry Creek

Location: T2N, R12E, Section 21 County Sweet Grass County

Donating Waters:

Name: Henry Creek

Location: T2N, R12E Section 28 County: Sweet Grass County

Montana Fish, Wildlife & Parks (FWP) is proposing to transfer fertilized Yellowstone cutthroat trout (*Oncorhynchus clarki bouvieri*) eggs within Henry Creek, a tributary to East Fork Duck Creek, located north of Springdale Montana (Figure 1). The East Fork Duck Creek drainage supports a population of Yellowstone cutthroat trout, which have tested as being greater than 99% genetically pure (Leary 2008). The resident Yellowstone cutthroat trout live with brown trout (*Salmo trutta*) in the East Fork Duck Creek watershed, which presents a threat to the long-term persistence of the native Yellowstone cutthroat trout. About 4 miles of Henry Creek is fishless above an eightfoot high waterfall. Transfer of fertilized eggs above this barrier would result in establishment of Yellowstone cutthroat trout in this fishless reach. If successful, this upstream population may provide an additional source of Yellowstone cutthroat trout to the mixed Yellowstone cutthroat trout and brown trout community below. In addition, this reserve of locally adapted fish may be useful in conserving Yellowstone cutthroat trout in the rest of the watershed, should the trend for displacement by nonnative brown trout continue.

FWP proposes to artificially spawn 10 to 20 male and female Yellowstone cutthroat trout collected from below the barrier falls in Henry Creek and plant freshly fertilized eggs in the gravel, likely in egg boxes or artificial redds. This action would begin in spring of 2009, and continue in the next two years. FWP will monitor survival of eggs, fry, and eventually, adult fish to determine effectiveness of the action.

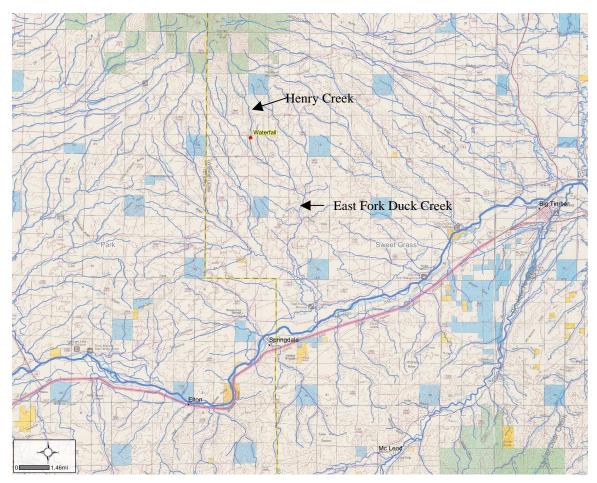


Figure 1: Map of Duck Creek watershed.

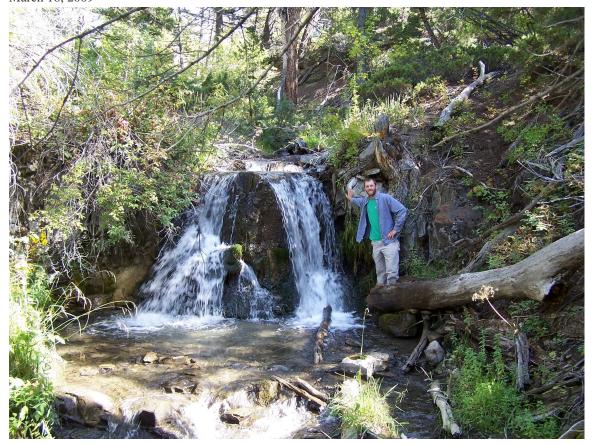


Figure 2: Waterfall on Henry Creek that functions as a barrier to upstream movement of fish.

B. Need for Action

In Montana, the Yellowstone cutthroat trout is native to much of the Yellowstone River watershed, but has declined markedly in abundance and distribution in its historic range. Currently, Yellowstone cutthroat trout occupy an estimated 31% of their previously held stream habitat in the state (May et al. 2007), putting the species at risk "because of very limited and/or declining numbers, range, and/or habitat, making it vulnerable to extirpation (Montana Natural Heritage Program [MHP] and FWP 2008). Securing existing populations, restoring Yellowstone cutthroat trout to previously occupied waters, and establishing populations in previously fishless waters are among the conservation priorities in managing the species (FWP 2000).

A variety of factors have led to the reduced and fragmented distribution of Yellowstone cutthroat trout. Introduction of nonnative fish, primarily rainbow trout (*Oncorhynchus mykiss*), brook trout (*Salvelinus fontinalis*), and brown trout, has been a leading cause of the decline (Gresswell 1995, Kruse et al. 2000). Brown trout and brook trout compete with Yellowstone cutthroat trout, and typically displace the native fish completely over time. Furthermore, brown trout consume fish as a regular part of their diet, which puts additional pressure on Yellowstone cutthroat trout. Rainbow trout interbreed with Yellowstone cutthroat trout, resulting in production of hybrids and loss of the genetically pure strains. Other pressures, such as habitat degradation, barriers to movement, and

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dewatering in spawning streams have also had a profound effect on Yellowstone cutthroat trout, contributing to the overall decline of the species. As numbers and the amount of occupied habitat shrink, remaining populations

The Yellowstone cutthroat trout population in the East Fork Duck Creek watershed faces typical threats. Presence of brown trout is the largest risk to long-term persistence of cutthroat trout, and fish surveys suggest a marked shift in species dominance over the past few decades. In the late 1980s, Yellowstone cutthroat trout were abundant, and substantially outnumbered nonnative brown trout (Dr. Ray White, formerly of Montana State University, unpublished data). In 2007, FWP sampled a portion of the East Fork Duck Creek, and found a reversal in species dominance, with brown trout adults outnumbering Yellowstone cutthroat trout adults 15 to 1. Reductions in Yellowstone cutthroat trout numbers increase threats of inbreeding, which presents an additional constraint on remaining fish. Intervention is warranted to create a reserve of locally adapted fish as part of a comprehensive approach to securing Yellowstone cutthroat trout in the Duck Creek watershed.

Potential changes in legal status of Yellowstone cutthroat trout presents another need for intervening in the Duck Creek watershed. Environmental advocates have petitioned the US Fish and Wildlife Service to include Yellowstone cutthroat trout under protection of the Endangered Species Act. The agency has twice declined to list this subspecies as threatened and endangered, most recently in 2006. The plaintiffs responded with a notice of intent to sue, indicating additional legal challenges are probable. Implementing projects such as this one will reduce justification for listing Yellowstone cutthroat trout, as these efforts demonstrate existing mechanisms are working in conserving the subspecies.

II. Impacts of the Proposed Action

An environmental assessment checklist presented in VI Environmental Assessment Checklist examines the full range of potential impacts on the human and physical environment. The following narrative provides detail on items with potential to be affected by the proposed action.

A. Impacts to the Physical Environment

1. Changes in diversity or abundance of game animals or bird species

The proposed action would introduce Yellowstone cutthroat trout to a fishless reach of Henry Creek, which constitutes a change in diversity and abundance of this native game species. This alteration would be beneficial to Yellowstone cutthroat trout, and is consistent with goals and objectives of conservation planning for the fish.

2. Changes in the diversity of abundance of nongame species

Introduction of fish into fishless waters has potential to negatively affect species with an aquatic life history stage. Amphibians and aquatic invertebrates are the taxa with the

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greatest likelihood of being affected. Determining the potential effects on invertebrates and amphibians involves evaluating the potential for Henry Creek to support aquatic life history stages of species that may be intolerant of sympatry with fish. The MNHP website presents range, life history, and habitat preference information used in evaluating potential effects on amphibians¹. In addition, consultations with a Bryce Maxell, a herpetologist at the MNHP, and Dr. Dan Gustafson (Montana State University) and Dave Stagliano (MNHP), both aquatic entomologists, provided additional information on potential effects on amphibians and aquatic invertebrates.

Larval amphibians are the most sensitive to predation by fish, but several factors limit the suitability of Henry Creek as a breeding area for most amphibians. As a relatively high gradient, swift, montane stream, Henry Creek is unsuitable for most species likely to occur in the area (Table 1), as they use standing waters or slow moving streams. The exception is the spotted frog, which according the MNHP's field guide will occasionally breed in beaver impoundments in streams, and beavers are active in the Duck Creek watershed. Nonetheless, as spotted frogs seldom use this type of habitat, the effects of expansion of Yellowstone cutthroat trout into fishless portions of Henry Creek on spotted frogs would likely be negligible.

Table 1: Amphibians potentially occurring within the project area

Order	Common Name	Scientific Name
Ambystomatidae	Tiger salamander	Ambystoma tigrinum
Scaphiopodidae	Plains spadefoot	Spea bombifrons
Bufonidae	Western toad	Bufo boreas
	Woodhouse's toad	Bufo woodhousii
Hylidae	Boreal chorus frog	Pseudacris maculate
Ranidae	Columbia spotted frog	Rana luteiventris
	Northern leopard frog	Rana pipiens

Adult amphibians with potential to occupy Henry Creek include the western toad and spotted frog. According to Bryce Maxell at the MNHP, western toads use fish bearing montane streams during summer months, and spotted frogs sometimes overwinter in such streams. Although Yellowstone cutthroat trout may prey on young toads and frogs, these losses would likely be insignificant, and not exert a population level effect (Bryce Maxell, MNHP, personal communication).

Effects on macroinvertebrates would likely be insignificant. Of macroinvertebrates occurring in montane streams in Montana, none have been found to be intolerant of coexisting with fish, and presence of fish can even increase diversity of macroinvertebrate communities (Dan Gustafson, Montana State University, personal communication). David Stagliano of MNHP affirmed Dr. Gustafson's conclusions.

3. Introduction of new species into an area?

Yellowstone cutthroat trout are native to the Duck Creek drainage; however, a waterfall has excluded all fish from most of Henry Creek. This project would introduce

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¹ http://fieldguide.mt.gov/displayFamily.aspx?class=Amphibia

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Yellowstone cutthroat trout into historically fishless waters, but within its native range. This type range expansion is among the conservation priorities designed to stem declines of Yellowstone cutthroat trout in Montana when the action will not have detrimental effects on other species (FWP 2007).

4. Adverse effects on any unique, rare, threatened or endangered species

A search of the MHP database for species of special concern likely to occur in the township and range encompassing Henry Creek yielded four species: gray wolf (*Canis lupus*), wolverine (*Gulo gulo*), Canada lynx (*Lynx canadensis*), and Yellowstone cutthroat trout. Aside from the brief, periodic presence of field crews in this relatively remote area, this project would have no effect on the mammal species. Yellowstone cutthroat trout would benefit with an expansion in miles of stream occupied.

5. List any federal or state permits required.

FWP requires approval of a wild fish transfer request, which is submitted to the FWP's Fish Health Committee. The committee approved this transfer request on February 3, 2009. Fish transfer activities would follow the FWP wild fish transfer policy and any conditions specified by the committee.

III. Discussion of Reasonable Alternatives

A. No Action

Under this action, no transfer of fish to Henry Creek above the waterfall would occur, and this reach of Henry Creek would remain fishless. Given a lack of alternative sites to secure a population of Duck Creek watershed Yellowstone cutthroat trout, no transfer would occur, and the watershed's Yellowstone cutthroat trout would remain at risk of extirpation from competition with and predation by nonnative brown trout.

B. Proposed Action

Fertilized Yellowstone cutthroat trout eggs would be transferred to a fishless reach of Henry Creek, resulting in establishment of a population of Yellowstone cutthroat trout free from competition and predation pressures presented by brown trout. This population would provide a source of fish to augment the downstream population. In addition, this secured population would provide brood stock of locally adapted fish for reintroduction into other streams in the drainage should such actions occur in the future.

Another advantage of this project would be in providing a case study that will facilitate the adaptive management of Yellowstone cutthroat trout conservation efforts. FWP will monitor the success of these plants, which will shed light on the performance of Yellowstone cutthroat trout in absence of brown trout. The results of this monitoring will allow prediction of potential population response to the removal of brown trout in future restoration efforts

IV. Environmental Assessment Conclusion Section

A. Evaluation of Significance Criteria and Identification of the Need for an EIS

Evaluation of potential impacts on the physical and human environment in IV Environmental Assessment Checklist provides the basis for determining the need for an environmental impact statement (EIS), which is a more rigorous evaluation of potential impacts to human health and the environment from the proposed action. If evaluation of these significance criteria suggests the proposed action would result in significant impacts, an EIS would be required.

This environmental review demonstrates that the impacts of this proposed project are not significant. The proposed action would benefit Yellowstone cutthroat trout in the Duck Creek watershed with minimal impact on the physical, biological, or the human environment.

B. Level of Public Involvement

Several factors influence the appropriate level of public involvement for a given proposed action. Risks to human health, the environment, local economics, as well as the seriousness of the environmental issues are key considerations. This project will include a 15-day public comment period. The public will be informed of the potential project through press releases in local newspapers and through a notice on FWP's website (http://fwp.mt.gov/news/default.aspx). If public interest is considerable, FWP will host a public meeting.

1.1.1. Public Comments

The public comment period will extend from March 16, 2009 through March 30, 2009.

Send comments to:

Ken Frazer Montana Fish, Wildlife & Parks 2300 Lake Elmo Drive Billings, MT 59105 (406) 247-2963 kfrazer@mt.gov

1.1.2. Parties Responsible for Preparation of the EA

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(406) 222-3710

cendicott@mt.gov

V. Literature Cited

- Gresswell, R. E. 1995. Yellowstone cutthroat trout. Pages 36-54 in M. K. Young, technical editor. Conservation assessment for inland cutthroat trout. U.S. Forest Service General Technical Report RM-GTR-256.
- Kruse, C. G., W. A. Hubert, and F. J. Rahel. 2000. Status of Yellowstone cutthroat trout in Wyoming waters. North American Journal of Fisheries Management 20: 693-705.
- Leary, R. 2008. Genetics letter to Jim Olsen, March 12, 2008. University of Montana Conservation Genetics Laboratory, Division of Biological Sciences, University of Montana, Missoula, Montana.
- May, B.E., S.E. Albeke, and T. Horton. 2007. Range-wide status assessment for Yellowstone cutthroat trout (Oncorhynchus clarki bouvieri): 2006. Report prepared for the Yellowstone Cutthroat Trout Interagency Coordination Group. Wild Trout Enterprises, LLC. Bozeman, Montana.
- Montana Fish, Wildlife & Parks. 2000. Cooperative Conservation Agreement for Yellowstone cutthroat trout within Montana between Crow Tribe, MFWP, DEQ, DNRC, Gallatin and Custer National Forests, BLM, FWS, BIA, and Yellowstone National Park. Montana Fish, Wildlife & Parks, Helena, Montana.
- Montana Natural Heritage Program and Montana Fish Wildlife and Parks. 2008. Montana Animal Species of Concern. Helena, MT: Montana Natural Heritage Program and Montana Department of Fish Wildlife and Parks. 17 p.

VI. Environmental Assessment Checklist

A. Physical Environment

1. LAND RESOURCES Will the proposed action result in:	Impact Unknown	None	Minor	Potentially Significant	Can Impact be Mitigated?	Comment Index
a. Soil instability of changes in geologic substructure?		X			Willigateu:	
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?		X				
c. Destruction, covering, or modification of any unique geologic or physical features?		X				
d. Changes in siltation, deposition, or erosion patterns that may modify the channel of a river or stream, or the bed or shore of a lake?		X				
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		X				
2. WATER	Impact	None	Minor	Potentially	Can	Comment

	Unknown			Significant	Impact be	Index
Will the proposed action result in:					Mitigated?	
a. Discharge into surface water or any		X				
alteration of surface water quality, including						
but not limited to temperature, dissolved oxygen, or turbidity?						
b. Changes in drainage patterns or the rate		X				
and amount of surface run off?		78				
c. Alteration in the course or magnitude of		X				
floodwater or other flows?						
d. Changes in the amount of surface water in		X				
any water body or creation of a new water						
body?						
e. Exposure of people or property to water		X				
related hazards such as flooding f. Changes in the quality of groundwater?		X				
g. Changes in the quantity of groundwater		X				
h. Increase in risk of contamination of		X				
surface or groundwater?		21				
i. Effects on any existing water right or		X				
reservation?						
j. Effects on other water users as a result of		X				
any alteration in surface or groundwater						
quantity?						
k. Effects on other users as a result of any		X				
alteration in surface or groundwater quantity?						
1. Will the project affect a designated		X				
floodplain?		Λ				
m. Will the result in any discharge that will		X				
affect federal or state water quality						
regulations? (Also see 2a)						
regulations? (Also see 2a)						
3. AIR	Impact	None	Minor	Potentially	Can	Comment
3. AIR	Impact Unknown	None	Minor	Potentially Significant	Impact be	Comment Index
3. AIR Will the proposed action result in:			Minor			
3. AIR Will the proposed action result in: a. Emission of air pollutants or deterioration		None	Minor		Impact be	
3. AIR Will the proposed action result in: a. Emission of air pollutants or deterioration of ambient air quality (also see 13 [c])		X	Minor		Impact be	
3. AIR Will the proposed action result in: a. Emission of air pollutants or deterioration of ambient air quality (also see 13 [c]) b. Creation of objectionable odors?		X	Minor		Impact be	
3. AIR Will the proposed action result in: a. Emission of air pollutants or deterioration of ambient air quality (also see 13 [c]) b. Creation of objectionable odors? c. Alteration of air movement, moisture, or		X	Minor		Impact be	
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and unique farmland?						
3. FISH/WILDLIFE Will the proposed action result in:	Impact Unknown	None	Minor	Potentially Significant	Can Impact be Mitigated?	Comment Index
a. Deterioration of critical fish or wildlife habitat?		X			. 2	
b. Changes in the diversity or abundance of game animals or bird species?				X Beneficial		1
c. Changes in the diversity or abundance of nongame species?			X			2
d. Introduction of new species into an area?				X Beneficial		3
e. Creation of a barrier to migration or movement of animals?		X				
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				4
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		X				
h. Will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat (Also see 5f).		X				
i. Will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d)				X		3

B. Human Environment

6. NOISE/ELECTRICAL EFFECTS Will the proposed action result in:	Impact Unknown	None	Minor	Potentially Significant	Can Impact be Mitigated?	Comment Index
a. Increases in existing noise levels?		X			1,111,841,041,	
b. Exposure of people to severe or nuisance noise levels?		X				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X				
d. Interference with radio or television reception and operation?		X				
7. LAND USE Will the proposed action result in:	Impact Unknown	None	Minor	Potentially Significant	Can Impact be Mitigated?	Comment Index
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X			Mingaeu.	
b. Conflict with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on or relocation of residences?		X				
8. RISK/HEATH HAZARDS Will the proposed action result in:	Impact Unknown	None	Minor	Potentially Significant	Can Impact be Mitigated?	Comment Index

1/1dreii 10, 200)						
a. Risk of an explosion or release of		X				
hazardous substances (including, but not						
limited to oil, pesticides, chemicals, or						
radiation) in the event of an accident or						
other forms of disruption?						
b. Affect an existing emergency response or		X				
emergency evacuation plan or create a need		21				
for a new plan?						
c. Creation of any human health hazard or		\mathbf{X}				
potential hazard?						
d. Will any chemical toxicants be used?		X				
			3.51	T	~	~ .
9. COMMUNITY IMPACT	Impact	None	Minor	Potentially	Can	Comment
	Unknown			Significant	Impact be	Index
Will the proposed action result in:					Mitigated?	
a. Alteration of the location, distribution,		X			Ü	
		А				
density, or growth rate of the human						
population area?						
b. Alteration of the social structure of a		\mathbf{X}				
community?						
c. Alteration of the level or distribution of						
employment or community or personal						
income?						
d. Changes in industrial or commercial		X				
activity?						
e. Increased traffic hazards or effects on		X				
		А				
existing transportation facilities or patterns						
of movement of people and goods?						
10. PUBLIC	Impact	None	Minor	Potentially	Can	Comment
	Unknown	Tione	WIIIOI			
SERVICES/TAXES/UTILITIES	Unknown			Significant	Impact be	Index
					Mitigated?	
					mingateu.	
Will the proposed action result in:					mingateu.	
		X			winigateu.	
a. Will the proposed action have an effect		X			Winigateu.	
a. Will the proposed action have an effect upon or result in a need for new or altered		X			Miligateur	
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the		X			Mugaccu	
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection,		X			Magacca	
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a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads		X			Magateur	
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply,		X			Magateur	
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste		X			Magateur	
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health or other governmental		X			Magateur	
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health or other governmental services? If any, specify:		X			Magateur	
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a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health or other governmental services? If any, specify: b. Will the proposed action have an effect upon the local or state tax base and revenues? c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications? d. Will the proposed action result in increased use of any energy source? e. Define projected revenue sources. f. Define projected maintenance costs. 11. AESTHETICS/RECREATION Will the proposed action result in: a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect		X X X None	Minor		Can Impact be	
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a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health or other governmental services? If any, specify: b. Will the proposed action have an effect upon the local or state tax base and revenues? c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications? d. Will the proposed action result in increased use of any energy source? e. Define projected revenue sources. f. Define projected maintenance costs. 11. AESTHETICS/RECREATION Will the proposed action result in: a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		X X X X None	Minor		Can Impact be	

recreational/tourism opportunities and						
settings (Attach tourism report)		***				
d. Will any designated or proposed will or		X				
scenic rivers, trails, or wilderness areas be						
impacted?	_					
12. CULTURAL/HISTORICAL	Impact	None	Minor	Potentially	Can	Comment
RESOURCES	Unknown			Significant	Impact be	Index
Will the proposed action result in:					Mitigated?	
a. Destruction or alteration of any site,		X				
structure, or object of prehistoric or		2.2				
paleontological importance?						
b. Physical change that would affect unique		X				
cultural values?						
c. Effects on existing religious or sacred						
uses of a site or area?						
d. Will the project affect historic or cultural		X				
resources?		2.2				
13. SUMMARY EVALUATION OF	Impact	None	Minor	Potentially	Can	Comment
SIGNIFICANCE	Unknown	None	WILLIOI	Significant	Impact be	Index
SIGILITE INVEL	CIMMOWII			Significant	Mitigated?	muca
Will the proposed action, considered as a					Willigatea.	
whole:						
a. Have impacts that are individually		X				
limited, but cumulatively considerable? (A		21				
project or program may result in impacts on						
two or more separate resources, which create						
a significant effect when considered together						
or in total.)						
b. Involve potential risks or adverse effects		X				
which are uncertain but extremely hazardous						
if they were to occur?						
c. Potentially conflict with the substantive						
requirements of any local, state, or federal						
law, regulation, standard, or formal plan?						
d. Establish a precedent or likelihood that		X				
future actions with significant environmental						
impacts will be proposed?						
e. Generate substantial debate or controversy		X				
about the nature of the impacts that would						
be created?						
f. Is the project expected to have organized		X				
opposition or generate substantial public						
controversy? (Also see 13e)						
g. List any federal or state permits required.						5